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Application Number

10/085,786

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US006849740B2

(12) **United States Patent**
Ledoussal et al.

(10) Patent No.: **US 6,849,740 B2**
 (45) Date of Patent: ***Feb. 1, 2005**

- (54) **ANTIMICROBIAL QUINOLONES, THEIR COMPOSITIONS AND USES**
- (75) Inventors: **Benoit Ledoussal**, Mason, OH (US);
Ji-In Kim Almstead, Holmdel, NJ (US); **Jeffrey Lyle Gray**, Loveland, OH (US)
- (73) Assignee: **The Procter & Gamble Company**, Cincinnati, OH (US)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

- (21) Appl. No.: **10/392,476**
- (22) Filed: **Mar. 18, 2003**
- (65) **Prior Publication Data**
- US 2003/0207862 A1 Nov. 6, 2003

Related U.S. Application Data

- (63) Continuation of application No. 10/085,786, filed on Feb. 28, 2002, now abandoned, which is a continuation of application No. 09/929,943, filed on Aug. 15, 2001, now Pat. No. 6,387,928, which is a continuation-in-part of application No. 09/266,197, filed on Mar. 10, 1999, now Pat. No. 6,329,391, which is a continuation-in-part of application No. 09/139,859, filed on Aug. 25, 1998, now abandoned
- (60) Provisional application No. 60/058,891, filed on Sep. 15, 1997.
- (51) Int. Cl.⁷ **A61K 31/47; C07D 215/16**
- (52) U.S. Cl. **546/156; 514/312**
- (58) Field of Search **546/156; 514/312**

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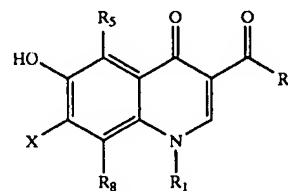
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Primary Examiner—D. Margaret Seaman
 (74) Attorney, Agent, or Firm—Andrew A. Paul; David V. Upite; Mary Pat McMahon

(57) ABSTRACT

Compounds having the general structure



which are effective antimicrobial agents.

19 Claims, No Drawings